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Idioblasts of Cruciferae.—Schweidler¹⁶ has decided to assign a systematic value to the peculiar idioblasts of the Cruciferae. The author at present reserves judgment as to their generic value, though this is expected to be established by further work. He has no doubt, however, that suborders and tribes can be accurately defined. On this basis he divides the family into three suborders. The first is characterized by the presence of idioblasts which contain chlorophyll and which are located exclusively in the mesophyll. The idioblasts of the second suborder occur in the vascular tissue and differ from those of the first group in not containing chlorophyll. The third suborder is composed of members which have both kinds of idioblasts. Just what would happen to the systematic standing of an individual so unfortunate as to have had the development of its idioblasts inhibited is certainly not for the reviewer to say, but in view of the urgent necessity of establishing systematic work upon an experimental basis rather than morphological, it is difficult to escape the conviction that more or less futility is involved in all those efforts of which this paper is an example.—Raymond H. Pond.

Araucarineae.—A preliminary note by Thomson¹⁷ states that in Agathis there are many supernumerary nuclei in the pollen tube and that in Araucaria as many as thirty were counted. The pollen tube grows along the surface of the ligule for 22^{cm} or more before entering the micropyle. The anatomy of the ovule and development of the archegonia, as well as of the pollen tubes and megaspore membranes indicate that the Araucarineae occupy a very isolated position among the Coniferales.

SEWARD and FORD in an abstract of a paper¹⁸ read before the Royal Society Dec. 14, 1905, indicate the scope of an extensive investigation of the Araucarieae. The section headings are: Introduction, distribution, diagnosis and synonymy, seedlings, root and stem anatomy, leaves and leaf traces, reproductive shoots, fossils, and phylogenetic considerations and conclusions.

The most important conclusion is that the group, unlike the Cycadales, has been derived from lycopodiaceous ancestors. The Araucarieae differ so greatly from the other Coniferales that the authors suggest the substitution of the term, *Araucarieae* for *Araucarieae*.—CHARLES J. CHAMBERLAIN.

Inhibitory action.—ERRERA¹⁹ suggests that the non-development of lateral branches or their growth in a particular position (e. g., of certain conifers) is determined by inhibitory stimuli (de nature catalysatrice si l'on veut) traversing either bark (Araucaria) or all living cells (Picea). We may conceive, he says, the apex of the stem or root as a sort of tyrant who forbids the subjacent

¹⁶Schweidler, J. H., Die systematische Bedeutung der Eiweiss- oder Myrosinzellen der Cruciferen nebst Beiträgen zu ihrer anatomisch-physiologischen Kenntniss. Ber. Deutsch. Bot. Gesells. 23:274–285. pl. 1905.

¹⁷Thomson, R. B., Preliminary note on the Araucarineae. Science 22:88. 1905. ¹⁸Seward, A. C., and Ford, Sibille, O., The Araucarieae, recent and extinct.

¹⁹Errera, L., Conflicts de préséance et excitations inhibitoires chez les végétaux. Mém. Soc. Roy. Bot. Belgique 42: 27-43. 3. Aug. 1905.